

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (currently amended) A method of digital image processing using face detection for achieving a desired spatial parameter, comprising:

(a) identifying a group of pixels that correspond to a face within a main digital image;

(b) generating in-camera, capturing or otherwise obtaining in-camera a collection of one or more low resolution images including said face;

(c) tracking said face within said collection of one or more low resolution images;

(d) identifying one or more sub-groups of pixels that correspond to one or more facial features of the face, said identifying of said group or sub-groups of pixels, or both, being based on the tracking of said face within said collection of one or more low resolution images;

(e) (c) determining initial values of one or more parameters of pixels of the one or more sub-groups of pixels;

(f) (f) determining an initial spatial parameter of the face within the main digital image based on the initial values; ~~and~~

(g) (g) determining adjusted values of pixels within the digital image for adjusting the main digital image based on a comparison of the initial and desired spatial parameters;

(h) generating an adjusted version of the digital image including said adjusted values of said pixels; and

(i) storing, displaying, transmitting, transferring, printing, uploading or downloading the adjusted version of the digital image, or a further processed version, or combinations thereof.

2. (original) The method of claim 1, the initial spatial parameter comprising orientation.
3. (original) The method of claim 1, further comprising automatically adjusting the values of the pixels within the digital image to adjust the initial spatial parameter approximately to the desired spatial parameter.
4. (original) The method of claim 1, further comprising automatically providing an option for adjusting the values of the pixels within the digital image to adjust the initial spatial parameter to the desired spatial parameter.

5-28 (cancelled).

29. (currently amended) One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of digital image processing using face detection for achieving a desired spatial parameter, comprising:

- (a) identifying a group of pixels that correspond to a face within a main digital image;
- (b) generating in-camera, capturing or otherwise obtaining in-camera a collection of one or more low resolution images including said face;
- (c) tracking said face within said collection of one or more low resolution images;
- (d) identifying one or more sub-groups of pixels that correspond to one or more facial features of the face, said identifying of said group or sub-groups of pixels, or both, being based on the tracking of said face within said collection of one or more low resolution images;
- (e) (c) determining initial values of one or more parameters of pixels of the one or more sub-groups of pixels;
- (f) (f) determining an initial spatial parameter of the face within the main digital image based on the initial values; ~~and~~

(e) (g) determining adjusted values of pixels within the digital image for adjusting the main digital image based on a comparison of the initial and desired spatial parameters;

(h) generating an adjusted version of the digital image including said adjusted values of said pixels; and

(i) storing, displaying, transmitting, transferring, printing, uploading or downloading the adjusted version of the digital image, or a further processed version, or combinations thereof.

30. (original) The one or more storage devices of claim 29, the initial spatial parameter comprising orientation

31. (original) The one or more storage devices of claim 29, the method further comprising automatically adjusting the values of the pixels within the digital image to adjust the initial spatial parameter approximately to the desired spatial parameter.

32. (original) The one or more storage devices of claim 29, the method further comprising automatically providing an option for adjusting the values of the pixels within the digital image to adjust the initial spatial parameter to the desired spatial parameter.

33-60 (cancelled).

61. (new) The method of claim 2, wherein the determining initial values of one or more parameters of pixels comprises calculating based on said orientation of said one or more sub-groups that correspond to one or more facial features.

62. (new) The method of claim 61, wherein said calculating based on said orientation of said one or more sub-groups that correspond to one or more facial features comprises calculating based on an axis of an ellipse fit to said sub-group.

63. (new) The method of claim 2, wherein said adjusted values of pixels within the digital image are rounded to a closest multiple of 90 degrees.

64. (new) The method of claim 2, further comprising adjusting the initial values to adjusted values for re-orienting the image to an adjusted orientation.

65. (new) The method of claim 2, wherein the one or more facial features include at least two features, and the initial values include positions of the at least two features, and the method further comprises determining relative positions of the at least two features based on the initial values, and wherein determining the initial orientation based on the relative positions of the at least two features.

66. (new) The method of claim 2, further comprising automatically adjusting initial orientation to an adjusted orientation.

67. (new) The method of claim 2, further comprising automatically providing an option for adjusting initial orientation to a suggested orientation.

68. (new) The method of claim 1, wherein the tracking comprises tracking said face within said main digital image and said collection of one or more low resolution images.

69. (new) The method of claim 68, wherein said identifying of said group or sub-groups of pixels, or both, is based on said tracking of said face within said main digital image and said collection of one or more low resolution images.

70. (new) The one or more storage devices of claim 30, wherein the determining initial values of one or more parameters of pixels comprises calculating based on said orientation of said one or more sub-groups that correspond to one or more facial features.

71. (new) The one or more storage devices of claim 70, wherein said calculating based on said orientation of said one or more sub-groups that correspond to one or more facial features comprises calculating based on an axis of an ellipse fit to said sub-group.

72. (new) The one or more storage devices of claim 30, wherein said adjusted values of pixels within the digital image are rounded to a closest multiple of 90 degrees.

73. (new) The one or more storage devices of claim 30, wherein the method further comprises adjusting the initial values to adjusted values for re-orienting the image to an adjusted orientation.

74. (new) The one or more storage devices of claim 30, wherein the one or more facial features include at least two features, and the initial values include positions of the at least two features, and wherein the method further comprises determining relative positions of the at least two features based on the initial values, and wherein determining the initial orientation based on the relative positions of the at least two features.

75. (new) The one or more storage devices of claim 30, wherein the method further comprises automatically adjusting initial orientation to an adjusted orientation.

76. (new) The one or more storage devices of claim 30, wherein the method further comprises automatically providing an option for adjusting initial orientation to a suggested orientation.

77. (new) The method of claim 29, wherein the tracking comprises tracking said face within said main digital image and said collection of one or more low resolution images.

78. (new) The method of claim 77, wherein said identifying of said group or sub-groups of pixels, or both, is based on said tracking of said face within said main digital image and said collection of one or more low resolution images.